

REMARKS

Amendments to claims

Claim 1 has been amended to specifically define that the second processor means is adapted for calculating a time-dependent estimate for the amount of drug in the reservoir, not just a time-dependent estimate for a value as in original claim 1. The new limitation of claim 1 is found in e.g. claims 2 and 3 as originally filed.

Corresponding to the amendment of claim 1, claims 2 and 3 now make reference to the time-dependent estimate just as the estimate has been defined as the amount of drug in the reservoir.

In claims 1, 6, 9 and 12 reference numerals have been deleted.

In claims 5, 6 and 10-12 the multiple dependencies have been removed.

Claims 13-16 are withdrawn, however, the Applicants reserve the right to later pursue any withdrawn subject-matter.

Claim rejections – 35 USC 112

The examiner has rejected claim 15 under 35 USC 112, second paragraph, however, as claim 15 is withdrawn the rejection has become moot.

Claim rejections – 35 USC 103

The examiner has rejected claim 1 under 35 USC 103(a) as being unpatentable over Ellinwood (US patent 4,146,029) in view of Nefel (US patent 5,764,159) and in further view of applicant's own admissions. Applicants submit that amended claim 1 is now patentable for which reason the rejection of dependent claims 2-12 (and withdrawn claims 13-16) is moot.

The present invention as claimed in amended claim 1 is based on the concept of:

- Providing an indicating device adapted to receive information from a drug delivery device
- Estimating a time-dependent value based on received information
- Displaying the estimated value to a user
- This giving the user an indication of the actual value for the amount of drug in the reservoir at a given point of time

This capability is neither known in its entirety nor in its parts from the cited prior art and thus cannot be the result of combining known features in an obvious way.

More specifically, the Examiner has cited Ellinwood as disclosing a drug delivery system comprising means for calculating an estimated time-dependent value and indication means for indicating the calculated. Turning to Ellinwood this reference is concerned with a combined cardiac pacer and drug delivery device comprising processor means for evaluating QRS values and implement treatment accordingly, i.e. pacing and drug delivery. In one of the disclosed embodiment the processor is provided with the capability of estimating the QRS period, however, this is for the sole purpose of treating a cardiac condition efficiently, see column 30, lines 35-45: *"The pacer combination allows for pacer stimulation at a point upstream from sensing electrodes thus providing a means of monitoring the conduction time or estimating the QRS period... Thus, the combination allows a specific evaluator-based treatment for ventricular tachycardia that would have been difficult to program without the pacer stimulus pulse control"*. This estimated value is solely for "internal use" by the device and is not communicated to the user. Indeed, no estimated value for the remaining drug in the reservoir is calculated.

The system disclosed in Ellinwood may comprise a remote control device, however, this device is disclosed as a means to provide extracorporeal programming and control, and does not allow a user to monitor any estimated values, especially no estimated value for the remaining drug in the reservoir is displayed on the remote control device.

Turning to Nefel this reference discloses an apparatus for remotely programming and monitoring a plurality of devices, especially a plurality of infusion pumps. For example, the control apparatus can be used to program the rate and duration for a given pump. In respect of the monitoring capability the control apparatus may be adapted to indicate remaining operation time for a given pump just as it can sound an alarm when a programmed infusion has come to an end. However, the control apparatus is not adapted to calculate any estimated values, especially, no estimated value for the remaining drug in the reservoir is calculated and displayed on the control apparatus.

In contrast to Ellinwood and Neftel, the present invention provides the user with an estimated value allowing a user to “virtually” monitor a drug reservoir value for a device which is no longer within reach of the user and/or the indicating device. As neither the problem behind the present invention nor the means to realize it is known from the cited prior art, it follows that the invention as now defined in claim 1 cannot be the result of combining known features in an obvious way to thereby result in a device having foreseeable advantages.

All further claims are dependent upon an independent claim.

In view of the above, applicants respectfully submit that all claims are in condition for allowance.

Conclusion

In view of the above, Applicants submit that the application is now in condition for allowance and issue and respectfully request early action to that end. Applicants believe that no additional fees are due. However, should any fees be due, the Commissioner is hereby authorized to charge any fees in connection with this application and to credit any overpayments to Deposit Account No. 14-1447. The undersigned invites the Examiner to contact him/her by telephone if there are any questions concerning this amendment or application.

Respectfully submitted,

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